

**North Carolina
Department of Transportation**

Powell Bill Lane Mileage Study

House Bill 817



March 1, 2014

Section 3.5 of Session Law 2013-183 requires the North Carolina Department of Transportation to report on at least three options to shift the distribution formula to include lane mile data. The report shall include advantages and disadvantages, fiscal impacts to each municipality and any other technical considerations in making such a change.

The current Powell Bill allocation is distributed as follows. Seventy-five percent (75%) of the funds are distributed among the municipalities in the percentage proportion that the population of each eligible municipality bears to the total population of all eligible municipalities. Twenty-five percent (25%) of the funds are distributed among the municipalities in the percentage proportion that the mileage of public streets in each eligible municipality which does not form a part of the State highway system bears to the total mileage of the public streets in all eligible municipalities which do not constitute a part of the State highway system.

This study includes the mileage distribution using lane mile data instead of road mile data. Lane miles are defined as the number of lanes times the highway length.

Three allocation options are presented in this study.

- (1) Allocation using current road mileage data vs. allocation using lane mileage data with the distribution based upon the current method of 25% mileage and 75% population.
- (2) Allocation using current road mileage data vs. allocation using lane mileage data with the distribution based upon a proposed method of 50% mileage and 50% population.
- (3) Allocation using current road mileage data vs. allocation using lane mileage data with the distribution based upon a proposed method of 75% mileage and 25% population.

The attached spreadsheet displays the results of the three allocation options for each of the five hundred seven (507) municipalities currently participating in the Powell Bill Program. The below table condenses the results into eight (8) population categories.

- Population under 1,000 (195 municipalities, receiving 2.35% of the 2013 allocation)
- Population 1,000 – 2,499 (107 municipalities, receiving 3.88% of the 2013 allocation)
- Population 2,500 – 4,999 (82 municipalities, receiving 6.32% of the 2013 allocation)
- Population 5,000 – 9,999 (41 municipalities, receiving 6.08% of the 2013 allocation)
- Population 10,000 – 24,999 (46 municipalities, receiving 14.12% of the 2013 allocation)
- Population 25,000 – 49,999 (18 municipalities, receiving 11.21% of the 2013 allocation)
- Population 50,000 – 99,999 (9 municipalities, receiving 11.41% of the 2013 allocation)
- Population over 100,000 (9 municipalities, receiving 44.63% of the 2013 allocation)

Population is based upon the July 1, 2013 estimate certified by the State Budget Officer. Road mileage is based upon the June 30, 2013 amount certified by a registered engineer or surveyor of each municipality. Lane mileage is based upon the June 30, 2013 amount reported by each municipality as of December 1, 2013.

	OPTION #1 Current Distribution 25% Mileage, 75% Population			OPTION #2 Proposed Distribution 50% Mileage, 50% Population		OPTION #3 Proposed Distribution 75% Mileage, 25% Population	
Municipality Population Range	Allocation Based on Road Mileage (Current Method)	Allocation Based on Lane Mileage	Percent Change from Current Method	Allocation Based on Lane Mileage	Percent Change from Current Method	Allocation Based on Lane Mileage	Percent Change from Current Method
Under 1,000	\$3,427,952.15	\$3,354,082.91	-2.15%	\$4,177,068.28	21.85%	\$5,000,053.79	45.86%
1,000 – 2,499	\$5,642,681.29	\$5,574,244.35	-1.21%	\$6,342,947.95	12.41%	\$7,111,651.43	26.03%
2,500 – 4,999	\$9,198,909.53	\$9,118,119.96	-0.88%	\$9,945,466.51	8.12%	\$10,772,812.99	17.11%
5,000 – 9,999	\$8,852,275.60	\$8,736,944.43	-1.30%	\$9,357,444.46	5.71%	\$9,977,944.47	12.72%
10,000 – 24,999	\$20,553,431.61	\$20,370,004.63	-0.89%	\$20,906,979.20	1.72%	\$21,443,953.88	4.33%
25,000 – 49,999	\$16,327,789.69	\$16,402,460.16	0.46%	\$16,454,730.64	0.78%	\$16,507,001.14	1.10%
50,000 – 99,999	\$16,616,681.30	\$16,646,603.71	0.18%	\$16,242,677.10	-2.25%	\$15,838,750.56	-4.68%
Over 100,000	\$64,990,384.21	\$65,407,645.23	0.64%	\$62,182,791.19	-4.32%	\$58,957,937.15	-9.28%

Analysis of Data

OPTION #1: Basing the allocation on 25% *lane* mileage and 75% population, municipalities with population of 50,000 and over when grouped together receive a small increase in funds (0.55% increase) and municipalities with population under 50,000 when grouped together receive a small decrease in funds (0.70% decrease).

OPTION #2: Basing the allocation on 50% *lane* mileage and 50% population, municipalities with population of 50,000 and over when grouped together receive an overall 3.90% decrease in funds when compared with the current distribution method. Municipalities with population under 50,000 when grouped together receive an overall 4.97% increase in funds when compared with the current distribution method. The smallest populated municipalities generally receive the largest percentage increase in funds.

OPTION #3: Basing the allocation on 75% *lane* mileage and 25% population, municipalities with population of 50,000 and over when grouped together receive an overall 8.35% decrease in funds when compared with the current distribution method. Municipalities with population under 50,000 when grouped together receive an overall 10.64% increase in funds when compared with the current distribution method. The smallest populated municipalities generally receive the largest percentage increase in funds.

Generally, the smaller municipalities receive a greater percentage of the funds as the allocation formula moves toward a higher percentage of mileage. Generally, the larger municipalities receive a greater percentage of the funds as the allocation formula moves toward a higher percentage of population. Shifting the distribution formula to lane miles instead of road miles has

a very insignificant impact on the distribution of funds. However, the larger municipalities do receive a very small increase in funds when calculating the allocation based on lane miles.

Any change in the distribution formula could be quickly programmed in the Powell Bill computer module.